

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TIVO INC.,

Plaintiff,

vs.

SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA,
INC.

Defendants.

SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA,
INC.,

Counterclaim Plaintiffs,

vs.

TIVO INC.,

Counterclaim Defendant.

Case No. 2:15-CV-1503-JRG

JURY TRIAL DEMANDED

TIVO'S P.R. 4-5(a) OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

TiVo is a pioneer in home entertainment. In addition to creating the first commercially viable digital video recorder ("DVR"), the devotion and ingenuity of TiVo's highly skilled engineers resulted in multiple patents protecting TiVo's innovations that have revolutionized the way we access and interact with multimedia content. This action seeks to end Defendant Samsung's ongoing infringement of four TiVo patents that relate to TiVo's pioneering developments in the field of time shifting television programs, digital video recording, and multimedia playback and processing: U.S. Patent No. 6,233,389 (the "Time Warp Patent"), U.S. Patent Nos. 7,558,472 and 8,457,476 (the "Media Switch Patents"), and U.S. Patent No. 6,792,195 (the "Trick Play Patent"). Exs. B, C, D, and E.

Claim construction in this case presents the Court with many of the same issues that it previously addressed. This Court has already construed many terms of the Time Warp Patent in the *EchoStar* case—constructions the Federal Circuit affirmed on appeal. The Court also adopted those same constructions in the subsequent cases against AT&T, Verizon and Motorola. Despite there being no basis to reach a different result than in prior cases, Samsung asks the Court to disregard many of its prior constructions and adopt new ones that have no support in either the patents or the intrinsic record. For the Time Warp Patent, Samsung argues that certain terms should now be considered means plus function under 35 U.S.C. § 112(f) and that they are indefinite—notwithstanding that they do not use the word "means" and were previously construed. For the Trick Play Patent, construed in the *Motorola* case, Samsung re-makes indefiniteness arguments that this Court has already rejected. These arguments have no more force now. Given that the patents and intrinsic record have not changed, TiVo asks the Court to adopt its previous constructions.

The Media Switch Patents were not at issue in the previous cases but claim priority to the Time Warp Patent and use many of the same terms. TiVo has proposed constructions that are in line with the Court's existing constructions and rooted in the intrinsic evidence. Samsung, however, proposes constructions that violate basic claim construction principles, such as limiting claims to particular embodiments and using extrinsic evidence to contradict the claims' plain meaning. TiVo requests that the Court adopt TiVo's proposals.

II. THE TIME WARP PATENT – U.S. PAT. NO. 6,233,389

A. Overview Of The Time Warp Patent

The Time Warp Patent describes systems and methods for "a multimedia time warping system" that "allows the user to store selected television broadcast programs while the user is simultaneously watching or reviewing another program." '389, Abstract; 2:1-3. The patent describes embodiments that allow a user to view a stored program with "trickplay" functions, such as reverse, fast forward, pause, and play. '389, 2:35-38. A user can also instantly review the previous scenes of a live television broadcast. '389, 3:20-23. The trickplay functionality is implemented with use of a unique architecture that allows program logic within a CPU to operate asynchronously from the flow of the data streams. '389, 8:19-38. Figure 8 of the Time Warp Patent illustrates program logic for one

embodiment. The interrelationship and operations of the source, transform, and sink exemplified in Figure 8 are easily understood by reference to either of asserted claims 31 and 61 (the "Software Claims").

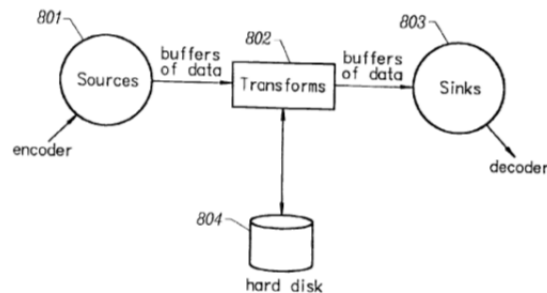


FIG. 8

One of the Time Warp Patent's many advantages is that it uses "an easily manipulated, low cost multimedia storage and display system." '389, 1:64-65. This is

achieved by the use of a novel "Media Switch" that connects to a microprocessor (*e.g.*, a CPU) and memory and relieves the CPU from having to perform operations that consume significant time and processing power. '389, 3:62-64; Figs. 1 & 7.

B. The Court Should Adopt Its Existing Constructions For All Of The Previously Construed Terms

TiVo asserts in this case independent claims 31 and 61 ("Software Claims"), independent claims 1 and 32 ("Hardware Claims"), and certain dependent claims of the Time Warp Patent. These claims have been the subject of extensive judicial scrutiny—eleven of the disputed terms already have been construed. This Court first construed the Time Warp Patent in the *EchoStar* case. *TiVo Inc. v. EchoStar Commc'ns Corp., et al.*, No. 2:04-CV-1-DF, 2005 WL 6225413 (E.D. Tex. Aug. 18, 2005) ("*EchoStar Markman*"). Using these constructions, the Court decided motions for summary judgment, presided over a jury trial, conducted a bench trial, adjudicated post-trial motions, and issued a permanent injunction. The Federal Circuit affirmed the constructions. *TiVo Inc. v. EchoStar Commc'ns Corp., et al.*, 516 F.3d 1290, 1306-10, 1312 (Fed. Cir. 2008) ("*EchoStar Appeal*"). This Court then applied claims 31 and 61 "as construed by this Court and upheld by the Federal Circuit" in subsequent contempt proceedings that resulted in further orders in TiVo's favor. *TiVo Inc. v. Dish Network, Corp.*, 640 F. Supp. 2d 853, 864 (E.D. Tex. 2009) ("*EchoStar Contempt*"). Since then, when asked to construe the same terms in the *AT&T* and *Verizon* cases, the Court considered the record and adopted its previous constructions. *TiVo Inc. v. AT&T, Inc., et al.*, No. 2:09-cv-259-DF, 2011 WL 6961021 (E.D. Tex. Oct. 13, 2011) ("*AT&T Markman*"); *TiVo Inc. v. Verizon Commc'ns, Inc., et al.*, No. 2:09-cv-257-DF, Dkt. No. 268, 2012 WL 2499387 (E.D. Tex. Mar. 12, 2012) ("*Verizon Markman*"). The Court also construed certain additional terms and held that no further construction is necessary for

phrases that are merely combinations of the previously construed terms. *See, e.g., Verizon Markman*, 2012 WL 2499387, at *3-*9. The Court adopted the same constructions again when asked to consider the claims in the *Motorola* matter. *See, e.g., Motorola Mobility, Inc. v. TiVo, Inc.*, No. 5:11-CV-53-JRG, 2012 WL 6087792, at *44 (E.D. Tex. Dec. 6, 2012) ("*Motorola Markman*"). There is no reason to depart from the Court's previous constructions for the Time Warp Patent.

1. "Object," "source object," "sink object," "transform object," and "control object" (claims 31, 61)

For the "object" terms, TiVo proposes the Court's existing constructions, which were determined "[i]n light of the claims and specification." *EchoStar Markman*, 2005 WL 6225413, at *14.¹ Under these existing constructions, the term "object" means "a collection of data and operations," a construction that applies to the terms "source object," "transform object," "sink object," and "control object." *Id.* at *12-13 (rejecting argument that "'object' means 'an item written with an object-oriented computer programming method (for example, in C++) that encapsulates data and the procedures necessary to operate on that data and can inherit properties from a class or another object.'") The Federal Circuit affirmed this Court's constructions for the claimed objects. *EchoStar Appeal*, 516 F.3d at 1306-07 (stating "[w]e discern no error in the district court's claim construction" and finding "no error in the [district] court's decision not to limit [claims 31 and 61] to embodiments employing object-oriented programming such as C++.")² The Court again adopted these constructions in the

¹ *See also, e.g., EchoStar Markman*, 2005 WL 6225413, at *13-14 ("The Court finds that persons of ordinary skill in the art readily understand the meaning of 'source object' upon a reading of the claim language and its context in the specification"); *id.* at *14 (same for "sink object" and "control object").)

² The panel expressly affirmed the construction of the Software Claims applying either a non-deferential *de novo* review or a deferential clear error standard of review if it "were to treat that ruling as a

AT&T, *Verizon*, and *Motorola* matters. *AT&T Markman*, 2011 WL 6961021, at *5; *Verizon Markman*, 2012 WL 2499387, at *5-6; *Motorola Markman*, 2012 WL 6087792, at *44.

The Federal Circuit's decision regarding the "object" terms is controlling. In *Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998), the Federal Circuit "recognize[d] the national *stare decisis* effect that [its] decisions on claim construction have." Courts in this District have applied these same principles. *See, e.g., Eolas Techs., Inc. v. Adobe Sys.*, No. 6:09-CV-00446-LED, 2011 U.S. Dist. LEXIS 157891, at *25 (E.D. Tex. 2011) (answering "whether the Court is bound by the principle of *stare decisis* to adopt the Illinois District Court's construction ... as affirmed by the Federal Circuit. After a thorough analysis of the case law, the answer is yes.")

Samsung overlooks not only Federal Circuit precedent, but this Court's and the Federal Circuit's decisions on this very term, contending that the "object" terms are means plus function terms under 35 U.S.C. section 112(f). Samsung's argument not only runs counter to the ten years of history regarding these claim terms, it is without merit. Because the claims do not use "means," they presumptively are not subject to section 112(f). *See, e.g., Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 704 (Fed. Cir. 1998); *Uniloc USA, Inc. v. Autodesk, Inc.*, No. 2:15-CV-1187-JRG-RSP, 2016 WL 3647977, at *5 (E.D. Tex. July 7, 2016). ("There is a rebuttable presumption that § 112, ¶ 6 applies when the claim language includes 'means' or 'step for' terms, and that it does not apply in the absence of those terms.")

While the Court need not revisit this issue, nothing in the record can overcome the

finding of fact" in light of extrinsic evidence. *EchoStar Appeal*, 516 F.3d at 1306-07 & n.2. The Federal Circuit's holding thus applies with full force under the standards in effect both before and after the Supreme Court decision in *Teva*.

presumption that 112(f) does not apply. "The presumption stands or falls according to whether one of ordinary skill in the art would understand the claim with the [alleged] functional language, in the context of the entire specification, to denote sufficiently definite structure or acts for performing the function." *Uniloc*, 2016 WL 3647977, at *5. This Court and the Federal Circuit have already held that in the computer software arts "object" has a particular meaning: "a collection of data and operations." *EchoStar Appeal*, 516 F.3d at 1306-07; *IEEE 100: The Authoritative Dictionary of IEEE Standard Terms* (7th ed. 2000), Ex. F, at 752. In other words, the claimed "objects" refer to software used in conjunction with the claimed storage and playback of multimedia data. This Court has rejected the argument that elements referring to a part of a software program are subject to section 112(f). *See Intellectual Ventures II LLC v. BITCO Gen. Ins. Corp.*, No. 615CV59LEADCASE, 2016 WL 125594, at *8 (E.D. Tex. Jan. 11, 2016) ("Defendants appear to assert that because the element implicates software structure, the term must be considered to be a means-plus-function element. Again, that is not the law.")

Samsung's proposed constructions are incorrect for the separate reason that they try to limit the claims to a particular embodiment relating to the C++ software programming language. For example, Samsung identifies as corresponding structure for the "transform object" certain "program logic as described in ... column 8, lines 9 through 21." Dkt. 154.01, L.R. 4-3 Prehearing Statement, Ex. A at 2. These portions of the specification refer to "a C++ class hierarchy derivation of the program logic." '389, 8:9-10. EchoStar made this same "C++" programming language argument, and both this Court and the Federal Circuit rejected it. The Federal Circuit unambiguously ruled that "neither the written description nor the claims anywhere state or imply that the invention must use object-oriented programming in general, or C++ in particular." *EchoStar Appeal*, 516 F.3d at 1307.

TiVo requests that this Court adopt the constructions for the "object" terms that it has applied in every prior case, and which the Federal Circuit has affirmed.

2. "Input section" and "output section"

Independent Claims 1 and 32 require providing "at least one Input Section" and "at least one Output Section" as part of the claimed invention for storing and playing back multimedia content. The Court construed the claimed "input section" and "output section" in *EchoStar*, holding that "the Court need look no further than the claims themselves to define these terms." *EchoStar Markman*, 2005 WL 6225413, at *8, *10. The "input section" is "the portion of a device that receives inputs," and the "output section" is "the portion of a device that decodes data from memory and produces output signals." *Id.* The Court's prior constructions reflect the plain meaning of these terms.³

Samsung incorrectly argues that the construction should be redone because the terms should be considered means plus function terms governed by section 112(f). Again, the claims do not use the word "means" and there is nothing in the record to overcome the presumption that section 112(f) does not apply. As this Court recently explained, "[s]tructure may also be provided by describing the claim limitation's operation, such as its input, output, or connections." *Intellectual Ventures II*, 2016 WL 125594, at *8 (quoting *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1299 (Fed. Cir. 2014 (considering the claim term "inputs" and "outputs," "the presumption against means-plus-function claiming was un rebutted")); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (considering term "inputs and outputs" and "interact[ion] with other components" as part of the 112(f)

³ "Input," for example, means "the device or collective set of devices used for bringing data into another device." *IEEE 100: The Authoritative Dictionary of IEEE Standard Terms*, Ex. F, at 556. "Output" is defined as "the device or collective set of devices used for taking data out of a device." *Id.* at 778.

presumption inquiry to determine whether they "inform the structural character of the limitation-in-question or otherwise impart structure") (overruling *Apple* on other grounds).

The claims here describe definite structure, including with reference to their "inputs" and "outputs." For example, claim 1 explains that the "input section" is the hardware "section" of the device that receives a "specific program" from the DVR's tuner. '389, cl. 1. After the input section receives that "specific program" it outputs it as an "MPEG formatted stream" to the "Media Switch." *Id.* Similarly, the "output section" receives "video and audio components" from the "storage device" and "sends said MPEG stream" to a "decoder." *Id.* Each of these hardware sections of the device are expressly defined in the claims in terms of the specific data which they input and output and the associated structure with which they interface, just as in the *Apple* case. *Apple*, 757 F.3d at 1299; *Intellectual Ventures II*, 2016 WL 125594, at *8. Given that section 112(f) does not apply and Samsung has not proposed any alternative construction, the Court should adopt its prior construction as TiVo proposes.

Although section 112(f) does not apply to these terms, in an excess of caution TiVo has proposed alternative constructions in the event that the Court applies an analysis under section 112(f). For purposes of this analysis, the parties have identified the same "functions" of the "input section" and the "output section." With respect to the proposed alternative structure for the "input section," TiVo identified the enumerated "Input Section 101" and the demodulator that it inherently includes. This captures those portions of the specification required to perform the identified functions whereas Samsung's construction for "input section" impermissibly imports "parser 705," which is not required structure. When applying section 112(f), it is well-settled that "[a] court may not import into the claim features that are unnecessary to perform the claimed function. Features that do not perform the recited function do not constitute corresponding structure and thus do not serve as claim

limitations." *Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1352 (Fed. Cir. 2003).

Regarding the "output section," Samsung proposes no structure at all, instead arguing only that the claim is indefinite. Samsung bears the burden of overcoming the presumption that 112(f) does not apply and of proving indefiniteness with clear and convincing evidence. Samsung can show neither. The specification describes "Output Section 103 [which] takes MPEG streams as input and produces an analog TV signal." '389, 4:3-4. The identified functions also are discussed at 7:50-51 and 8:6-9, for example. *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 950 (Fed. Cir. 2007) ("[W]hile the specification must contain structure linked to claimed means, this is not a high bar: '[a]ll one needs to do in order to obtain the benefit of [§ 112(f)] is to recite some structure corresponding to the means in the specification'"); *see also EnOcean GmbH v. Face Int'l Corp.*, 742 F.3d 955, 961 (Fed. Cir. 2014). TiVo's proposed alternative 112(f) structure for the "output section" corresponds to the functions clearly linked in the specification.

3. "Storing said video and audio components on a storage device" and "module for storing said video and audio components on a storage device"

The Court in *EchoStar* previously considered "storing said video and audio components on a storage device" in claim 1, and nothing has changed in the intrinsic record to justify departing from the Court's prior analysis. Like *EchoStar* before it, Samsung seeks to inject the "separated" idea into the "storing" term. The Court previously declined to do so, finding "that these terms do not require construction." *EchoStar Markman*, 2005 WL 6225413, at *10. Language that is clear on its face need not be construed when no further understanding or explanation is needed. *See, e.g., Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015) ("While the court must resolve actual disputes regarding the proper scope of a claim term . . . [b]ecause the plain and ordinary meaning of the

disputed claim language is clear, the district court did not err by declining to construe the claim term.") Here, claims 1 and 32 state that "audio and video components" must be "stor[ed]" onto the "storage device." Samsung's proposal, which includes other words from different claim elements relating to the "media switch" operating on an MPEG stream does not clarify anything.

Samsung also argues that the "module for storing said video and audio components on a storage device" term should be construed under section 112(f). The Federal Circuit has stated that whether a claimed "module" is subject to 112(f) depends on the context and whether the rest of the claim's terms "describe a sufficiently definite structure."

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1351 (Fed. Cir. 2015) ("module" may be a "nonce" word in some cases, but 112(f) may not apply when considering the terms surrounding context). This Court has separately construed the word "module" in related TiVo patents and has never held that the claims are subject to 112(f). *See e.g., AT&T Markman*, 2011 WL 6961021, at *14-15, *19 (expressly construing the term "module" in TiVo's '465 and '015 patents, which share common disclosures with the Time Warp Patent). This ruling also is consistent with the Court's decisions in a number of cases involving computer software claims holding the term "module" "provides sufficient structure."

Beneficial Innovations, Inc. v. Blockdot, Inc., No. 2:07CV263TJWCE, 2010 WL 1441779, at *16 (E.D. Tex. Apr. 12, 2010) (collecting cases: *PalmTop Productions, Inc. v. Lo-Q PLC*, 450 F. Supp. 2d 1344, 1364–66 (N.D. Ga. 2006) ("communications module" and "module" represents more than a mere verbal construct serving as a means for substitute); *Stanacard, LLC v. Rebtel Networks, AB*, 680 F. Supp. 2d 483, (S.D.N.Y. 2010) ("module" limitations to have sufficient structure such that § 112, ¶ 6 is not invoked)). Because section 112(f) does not apply, and Samsung has not proposed any alternative construction, the Court should

adopt its prior construction as TiVo proposes.

Although the Court should not apply section 112(f), in the event that it were to do so, the alternative function and structure that TiVo identified are supported by the patent. The parties have both identified that the function is "storing said video and audio components on a storage device." The patent clearly links portions of the "transform object" to performing this function. For example, the patent specification describes a "temporal transform" performed by the "transform object 902" that involves the function of storing (and retrieving) a television program to a storage device for later viewing. '389, 8:2-7 ("Temporal transforms are used when there is no time relation that is expressible between buffers going in and buffers coming out of a system. Such a transform writes the buffer to a file 804 on the storage medium.") Claim 31 also describes "a transform object, wherein said transform object stores and retrieves data streams onto a storage device." While this term is not means plus function, Samsung's argument that the specification fails to clearly link structure to the function is incorrect.

4. "Simultaneous" / "simultaneously"

The Court in *EchoStar* considered "simultaneously" and held that it means that "operations are performed at the same time." *TiVo Inc. v. EchoStar Commc'ns Corp.*, No. 2:04-CV-1-DF, 2006 WL 6143144, at *4 (E.D. Tex. Mar. 24, 2006) ("*EchoStar Supp. Construction*"). In reaching this conclusion, the Court rejected the argument in which "EchoStar essentially argues that 'at the same time' means 'at exactly the same time.'" *Id.* The Court observed that such a construction would read out a preferred embodiment. *Id.* The specification and claims 5 and 36 recite that storage and extraction are "performed simultaneously." The Media Switch "then performs two operations if the user is watching real time TV: the stream is sent to the Output Section and it is written simultaneously to the

hard disk or storage device." '389, 3:66-4:2. Citing this passage of the specification, the Court in *EchoStar* concluded "[t]he preferred embodiment indicates that 'performed simultaneously' means the operations are performed at the same time." *EchoStar Supp. Constructions*, 2006 WL 6143144, at *4. Nothing in the specification requires that simultaneously refer to an operation at precisely the same instant. Samsung makes the same argument here, again proposing a construction that would exclude this preferred embodiment by requiring the operations to be performed at "exactly" the same time. A construction that excludes a preferred embodiment is strongly disfavored. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583-84 (Fed. Cir. 1996). The specification does not give the term any special meaning or limit the term as Samsung contends. The Court should reject Samsung's position as it did before in *EchoStar*.

5. "Media switch" / "providing a Media Switch, wherein said Media Switch parses said MPEG stream, said MPEG stream is separated into its video and audio components"

The "media switch" term was construed in the *EchoStar* case. Based on the parties' proposed constructions here, there is no dispute that "media switch" means "hardware and/or code that mediates between a microprocessor CPU, hard-disk or storage device, and memory." Because the parties appear in agreement on this point, TiVo requests that the Court adopt it. Samsung seeks a redundant restatement of the larger portion of claim language that includes "media switch," but does not offer meaningful construction for the rest of the term. Instead, the remainder of Samsung's proposed "construction" for "parses said MPEG stream, said MPEG stream is separated into its video and audio components" simply restates the words in the claim. There is no reason for such redundancy. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("[Claim Construction] is not an obligatory exercise in redundancy.") The remainder of the term

should be given its plain meaning, as TiVo proposes.

The remainder of the term, "...parses said MPEG stream, said MPEG stream is separated into its video and audio components," needs no further construction. But if construed now, the Court should continue to apply the "clarification" of the term "parse" from the decision in *EchoStar*: "providing hardware and/or code that mediates between a microprocessor CPU, hard-disk or storage device, and memory, wherein said device, portion of a device, or code *analyzes* said MPEG stream, said MPEG stream is separated into its video and audio components." *EchoStar Markman*, 2005 WL 6225413, at *9.

6. The Court should adopt certain of its prior constructions that are not genuinely in dispute

TiVo asks that the Court expressly enter the previous constructions for "parse," "accepts broadcast data," and "accepting television (TV) broadcast signals" (a term the Federal Circuit construed in the *EchoStar* appeal). These constructions will be helpful again, and should be re-adopted. Samsung provides no meaningful reason to deny the Court and jury the benefit of these constructions.

III. THE MEDIA SWITCH PATENTS - U.S. PAT. NOS. 7,558,472 AND 8,457,476

A. Overview Of The Media Switch Patents

The Media Switch Patents are continuations-in-part that claim priority to the Time Warp Patent. The entire Time Warp Patent disclosure is included in the specification of the Media Switch Patents. The claims of the Media Switch Patents are directed toward hardware architectures that employ the "media switch," inventions also disclosed in the Time Warp Patent specification. For example, the claims of the Media Switch Patents cover certain configurations of internal components of the claimed "media switch" that include "controllers," "managers," "arbiters," and "processors" as well as interconnecting the recited

components with various electronic "buses." An embodiment of the claimed "media switch" is depicted, for example, in Figure 7 of the Media Switch Patents and the Time Warp Patent. In this example, the "media switch's" "host controller" controls hard disk 710, the "bus arbiter" arbitrates communication on data bus 711 and address bus 712, the "DMA controller" is depicted in box 709, and an example "multimedia data stream processor" is included as parser 705. The Media Switch Patents seek to claim this and other media switch combinations that were disclosed in the original Time Warp Patent.

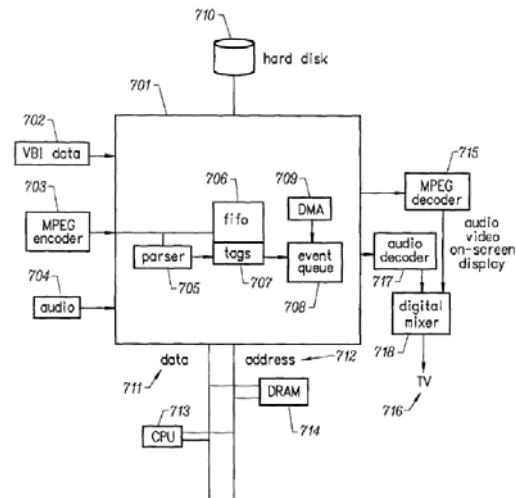


FIG. 7

B. Identical Terms Used In Both The Time Warp And Media Switch Patent Claims Should Be Given The Same Meaning

The Media Switch Patent claims recite several terms that also appear in the Time Warp Patent claims, including the claimed "input section" and "media switch" and the term "simultaneous"/"simultaneously." These terms were previously construed in the *EchoStar* case. The existing constructions should be applied consistently across these patents.

The Media Switch Patents derive from the same application as the Time Warp Patent, and include the Time Warp Patent's specification. Common terms in related patents should be given the same meaning. *See, e.g., Biovail Corp. Int'l v. Andrx Pharm., Inc.*, 239 F.3d 1297, 1301 (Fed. Cir. 2001) ("Claim language, however, must be read consistently with the totality of the patent's applicable prosecution history.") *See also Gemalto S.A. v. HTC Corp.*, 754 F.3d 1364, 1371 (Fed. Cir. 2014) (identical language in the claims of two related patent applications given the same construction). Here, nothing in the prosecution history of

the Media Switch Patents suggests that these identical terms were intended to have different meanings—the Media Switch Patents include the Time Warp Patent specification and figures in their entirety, and expressly claim priority to the same underlying application. *See Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1579 (Fed. Cir. 1995) ("The fact that we must look to other claims using the same term when interpreting a term in an asserted claim mandates that the term be interpreted consistently in all claims.")

1. "Input section"

The term "input section" appears in claims 1, 12, and 15 of the '472 patent and claims 1 and 8 of the '476 patent. In connection with the Time Warp Patent, this term was construed in *EchoStar* to mean "the portion of a device that receives inputs." *EchoStar Markman*, 2005 WL 6225413, at *8. This term should be given the same construction here.

Samsung's argument that this term in the Media Switch Patents is subject section 112(f) is incorrect here for the same reasons as in the Time Warp Patent. The term does not use "means" and nothing in the intrinsic record overcomes the presumption that section 112(f) does not apply. A review of the claim language itself confirms that the terms refer to definite structure—the "inputs" and "outputs" of the claimed "input section." In particular, the claims explain that the "input section" is hardware that acquires "an input signal," and then outputs "a transport stream." '472 and '476, cls. 1. The specification explains that the received "input signal" is made up of "audio and video components." '472, 3:10-11. The patent further explains that the "transport stream" may be output from the "input section" such that the "input signal is accepted by an input section 1401 passed to the output section 1402 as an MPEG-2 transport stream." '472 16:17-19. Each of these input and output signals convey to one of skill in the art the definite structure claimed. *Apple*, 757 F.3d at 1299 ("[s]tructure may also be provided by describing the claim limitation's operation, such as its

input, output, or connections.")

In the event that the Court revisits its construction and applies section 112(f), and it should not, TiVo's proposed alternative construction is correct. The parties agree on the 112(f) functions of the "input section" in each patent. TiVo proposes that the same structure performs the comparable functions in each claim, while Samsung proposes different structure. For each claim, the structure described in the specification to acquire input signals and output a transport stream is "Input section 101, including any of tuners 201-204 and demodulator 1601, and equivalents thereof." Dkt. 154.01, L.R. 4-3 Prehearing Statement, Ex. A at 13. Tuners 201-204 are described as acquiring input signals: "Input Sections (tuners) 201, 202, 203, 204, each can be tuned to different types of input." '472, 5:12-13. Additionally, the specification further explains that demodulators create a transport stream from the incoming signal. *See, e.g.*, '472, 17:14-15 ("Demodulators 1702 demodulate the incoming QPSK (quadrature phase shift keying) to yield a transport stream.") Because the specification makes clear that these structures perform the claimed functions of "acquiring an input signal," "creating a transport stream from the input signal," and "passing the input signal to the output section as a transport stream," should the Court apply section 112(f), TiVo's proposed alternative construction is correct.

2. "Media switch"

The Court should give the term "media switch" in claim 1 of each of the Media Switch Patents the same construction as the "media switch" in the Time Warp Patent: "hardware and/or code that mediates between a microprocessor CPU, hard-disk or storage device, and memory." *Gemalto*, 754 F.3d at 1371 (identical language in claims of two related patent applications given the same construction).

Samsung improperly seeks to read into the Media Switch Patent claims extra

limitations from the Time Warp Patent that require that the media switch "parses and separates the transport stream into its audio and video components." The "parse" and "separate" limitations, however, appear in the Time Warp Patent claims and not in the Media Switch Patent claims. Samsung's effort to import limitations from another set of claims in another patent runs afoul of basic claim construction rules: "It is settled law that when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement." *SRI Intern. v. Matsushita Elec. Corp. of America*, 775 F.2d 1107, 1122 (Fed. Cir. 1985). Because claim 1 of the Media Switch Patents does not require that the "media switch" perform the "parsing" and "separating" operations claimed in the Time Warp Patent, it is improper to read these limitations into the "media switch" term.

3. "Simultaneous"/ "simultaneously"

Claims 1 of each of the Media Switch Patents recite that claimed storage and retrieval of multimedia data occurs "essentially simultaneously." As discussed above with the Time Warp Patent, "simultaneously" means "operations are performed at the same time." *EchoStar Supp. Constructions*, 2006 WL 6143144, at *4. There is no reason to apply a different construction for the Media Switch Patents. Moreover, Samsung's addition of "exactly" would vitiate the additional term "essentially" in this claim.

C. TiVo's Proposed Constructions Are Correct

1. "Multimedia data stream processor"

Claim 1 of each of the Media Switch Patents require that the claimed media switch include a "multimedia data stream processor." The "multimedia data stream processor" should be construed to mean "media switch/media manager processor(s) that processes multimedia data." TiVo's proposed construction is consistent with the plain language of the

claim. '472 claim 1 recites a "media switch" comprising "a media manager," which includes, among other things, "a multimedia data stream processor." '472, cl. 1.

TiVo's proposed construction also tracks the specification. The Media Switch Patents explain that a processor in the media switch processes multimedia data, and that this processor is the claimed "multimedia data stream processor." In particular, the specification explains that one function of the "media switch" is to process multimedia data to alleviate processing requirements on the CPU. '472, 1:65-2:3. Offloading multimedia processing to the "multimedia data stream processor" that is part of the "media switch" is beneficial because "the CPU is decoupled from the high data rates of the video signal, thus reducing processor requirements." '472, 13:27-29; *see also id.* at 1:65-2:3 (advantageous "to provide a multimedia signal processing system that utilizes an approach that decouples the microprocessor from the high video data rates, thereby reducing the microprocessor and system requirements, which are at a premium.") The specification also describes that the media switch can include a multimedia data stream processor in the form of a "parsing mechanism 705" in order to "decouple the CPU from parsing the audio, video, and buffers and the real time nature of the streams, which allows for lower costs." '472, 8:9-12.

Samsung's proposal asks the Court to rewrite the claimed "multimedia data stream processor" to require five specific components of a particular and distinct "**multi-channel** media stream processor" embodiment described at column 18:35-42 of the '472 patent specification. The specification lists each of Samsung's five functions only in connection with this "multi-channel media stream processor," not in connection with the "multimedia data stream processor" of the present claims:

As Fig. 22 shows, the **multi-channel media stream processor** includes:
 a system interface 2201;
 a media stream identifier 2202;

a media stream processor core 2203;
 a multi-channel state engine 2204; and
 a media stream identification generator 2205.

'472, 18:35-4 (emphasis added). The claim term should not be revised to recite a multi-channel media stream processor; nor should the five features Samsung proposes be read into the claims. The Federal Circuit has repeatedly cautioned that it is improper to limit claims to embodiments in the specification. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed Cir. 2005) (en banc) ("although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments"); *Innogenics N.V. v. Abbot Labs.*, 512 F.3d 1363, 1370 (Fed. Cir. 2008) (courts should not "at any time import limitations from the specification into the claims.") Samsung's construction violates this basic canon of claim construction. Samsung's proposal also should be rejected because it adds uncertainty to the scope and meaning of each of the features Samsung includes in its construction. *Tessenderlo Kerley, Inc. v. Or-Cal, Inc.*, No. C 11-04100 WHA, 2012 WL 3116059, at *2 (N.D. Cal. July 26, 2012) (rejecting a proposed construction because "[a] purpose of claim construction is to remove ambiguity. Here, construing the term [as defendant suggested] would add ambiguity.") The five elements in Samsung's construction also would each in turn need its own construction.

Samsung's five-part construction also is inconsistent with the intrinsic record. The prosecution history makes clear that Samsung is trying to rewrite the claims to cover only a distinct embodiment that was the subject of a restriction requirement and eventually the subject of a different patent's claims. During prosecution, the examiner recognized that the "multi-channel" embodiment is different than the other pending claims and applied a restriction requirement requiring TiVo to prosecute those claims separately. *See* 35 U.S.C. § 121 ("If two or more **independent and distinct** inventions are claimed in one application,

the Director may require the application to be restricted to one of the inventions.")

Restricted original claim 42, for example, expressly sought to claim the "multi-channel media stream processor" of Samsung's construction. Ex. H (original claims) at 32. The examiner explained that "Claims 42-61, drawn to a system for processing a media stream across several channels simultaneously" are separate and distinct inventions from the remainder of the claims. Ex. I (restriction requirement) at 2; *see also id.* at 3 ("because these inventions are **distinct** for the reasons given above and ... because of their **recognized divergent subject matter** restriction for examination purposes as indicated is proper.") (emphasis added). TiVo elected to prosecute the other set of claims (claims 1-41)—which resulted in the '472 and '476 patents now at issue. Ex. J (response). Because Samsung points to an embodiment that the examiner restricted out, it is improper to limit the claims to that embodiment. *See Rambus Inc. v. Infineon Techns. Ag*, 318 F.3d 1081, 1095 (Fed. Cir. 2003) (district court erred in construing term "bus" as requiring a multiplexing bus where PTO entered a restriction requirement to restrict out claims to a multiplexing bus from claims to a generic bus and applicant elected to prosecute the claims to the generic bus). Moreover, the restricted embodiment on which Samsung relies also was ultimately claimed in a separate divisional patent application that resulted in a different patent, U.S. Patent No. 7,668,435, Ex. K, which specifically claims "a multi channel media stream processor," a limitation not present in the patents at issue.

2. "Media manager" ('472 patent only)

TiVo's proposed construction for the "media manager" is consistent with the claims and the specification. Claim 1, for example, recites that the "media manger" is a part of the "media switch," and that the "media manager" includes "a host controller; a DMA controller; a bus arbiter; and a multimedia data stream processor." TiVo's construction reflects the

relationship in the claim language between the components of the claimed "media manager" and the "media switch."

The specification also describes the role of the media manager. The specification explains that the "media switch" "mediates between a microprocessor CPU, hard-disk or storage device, and memory," '472, 4:60-61, and that a "media manager" may be a portion of the "media switch" that assists with these "mediating" operations, '472, cl. 1; 15:42-44. The patent explains that "[w]hile the media manager provides a number of functions, its major function is that of a bridging element between system components, due to the number and type of I/O functions it incorporates." '472, 13:40-43; *see also id.* at 15:8-15 ("media manager 1405... performs a bridging or mediating function between many of the hardware components of the system, notably the CPU 1403, the hard disk or storage device 1505, and memory 1501. The media manager 1405 provides this function by virtue of the assortment of interfaces and I/O devices integrated within the media manager"); 15:42-44 ("As previously described, the media manager also mediates the transfer of media streams between the CPU 1403, memory 1501, and the hard drive 1505.") Each of these I/O devices, such as the "host controller," "DMA controller," and "bus arbiter" are used by the "media manager" to interface with and mediate between other system components: the "DMA controller" mediates DMA transfers between devices and system memory, '472, 8:16-19, the "host controller" mediates host devices (*e.g.* disks), '472, 15:59-65, and the "bus arbiter" arbitrates data flow on the buses (*e.g.* address and data busses), '472, 15:8-13.

Samsung's argument that the term is indefinite lacks merit. The claims and specification describe the "media manager" with reasonable certainty, making clear the relationship of the "media switch" to the "media manager" which it may include. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129–30, (2014) (not indefinite when

"claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.")

3. "Data bus"

Claim 1 of the '472 patent requires as part of the output section a "decoder subsystem" that is "connected to said processor by a first data bus" and a "media switch connected to said decoder subsystem by a second data bus." The claim uses the term "data bus" to refer to any one of the buses used to communicate data between the "decoder subsystem," "processor," and "media switch." '472, cl. 1. The plain and ordinary meaning of "data bus" is "a bus used to communicate data to and from a processing unit or storage device." *IEEE Standard Dictionary Of Electrical And Electronics Terms* (6th ed. 1997), Ex. G. There is no reason to deviate from this meaning in construing the claimed "data bus" terms.

Samsung's proposed construction is inconsistent with the language of the claim and makes the claim more difficult to understand. Samsung's proposal comes from a definition in the IEEE dictionary that describes a bus as a "conductor." This definition, however, discusses transmitting "power" and is inapposite. Samsung's proposal also complicates the issue. For example, what is a "conductor" in this context and what amount of conductivity is required for something to be deemed a conductor? Samsung's proposal is inconsistent with the language of the claim and only complicates the issue.

IV. THE TRICK PLAY PATENT – U.S. PAT. NO. 6,792,195

A. Overview of the Trick Play Patent

The Trick Play patent discloses and claims a process for storing video and audio data streams in a memory that is referred to as the linear cache. '195, cl. 58. The linear cache continuously buffers (*i.e.*, stores) information from the stream of video and audio data to

provide a window of this data stream. '195, 4:15-23. The linear cache discards any information that falls outside of the window such that there is a finite buffer of streamed information. '195, 7:7-15. For example, the linear cache may buffer a finite portion of a live broadcasted sports event. '195, Figs. 1 and 2. The process supports operations sometimes referred to as trickplay functions, such as pause, rewind, fast forward and play of the portion of the program that is stored in the linear cache. '195, 4:1-5.

The Court has previously construed many of the "means" terms at issue, and TiVo requests that the Court adopt its prior constructions. Just as Motorola argued unsuccessfully before this Court, Samsung argues that several "means" limitations in the Trick Play Patent are invalid as indefinite for failure to disclose and link structure that corresponds to the recited function. This Court has already rejected these arguments, finding that the Trick Play Patent links corresponding structure to perform the function recited in each of these terms. Samsung does not substantively contest the Court's prior constructions, and agrees that those constructions should apply when its indefiniteness arguments fail.

B. The Court Should Reject Defendant's Recycled Indefiniteness Arguments And Adopt Its Prior Constructions

1. The Court's prior constructions fully resolve Defendant's indefiniteness arguments and should be adopted

The Court considered and rejected in the *Motorola* case the same arguments that the "cache access means...", "cache control means..." and "synchronization means..." were indefinite for failing to clearly link structure to the claimed functions. Samsung suggests (and TiVo agrees) that claim terms have the same functions as those presented in the prior case. Samsung also agrees that the Court's prior constructions should apply if the Court again rejects the indefiniteness argument. The only dispute appears to be Samsung's desire to re-litigate Motorola's prior arguments regarding linking the agreed structure to the agreed

functions. The Court correctly rejected this argument before and should do so again here.

Nothing has changed in the intrinsic record to justify departing from the Court's prior analysis. For each of these terms, the associated structure includes, among other things, "Buffer Controller (201)," which this Court identified for each term as "sufficient corresponding structure to avoid indefiniteness." *Motorola Markman*, 2012 WL 6087792, at *70, *73, *77. In support of the ruling, the Court cited *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1376 (Fed. Cir. 2010), which held that "controller" is a sufficient disclosure of structure because "[t]he record shows that an ordinary artisan would have recognized the controller as an electronic device with a known structure." *Id.* at 1376-77.

2. "Cache access means for selecting a portion of the linear cache for streaming access to information stored therein"

This Court has held that "cache access means" "is not indefinite, that the function is 'selecting a portion of the linear cache for streaming access to information stored therein,' and that the corresponding structure is 'buffer controller (201) and a current block indicator, and equivalents thereof.'" *Motorola Markman*, 2012 WL 6087792, at *70.

The intrinsic evidence supports the Court's prior construction. The "buffer controller (201)" performs the claimed function of "selecting a portion of the linear cache." The specification explains that the Buffer Controller 201, which is part of the structure, performs many operations related to trickplay. For example, "[t]he BC [Buffer Controller 201] implements the pause function by locking the current block indicator in the key stream to that block." '195, 8:58-59. Specifically, the Buffer Controller controls the "current block indicator," which "select[s] a portion of the linear cache for streaming access to information stored therein." '195, 5:42. The specification also explains:

1. The Buffer Controller (201) is the main management device. It accepts external requests (generated, for instance, from a remote control

device) for operations on the digital stream and, in turn, generates appropriate control messages for the other devices of the invention

Id. at 5:6-11. Accordingly, the structure in the Court's prior construction is clearly linked to the agreed upon function. *Biomedino*, 490 F.3d at 950 ("while the specification must contain structure linked to claimed means, this is not a high bar.")

3. **"Cache control means for controlling a rate of said streaming access to said linear cache; . . . wherein said cache control means controls a rate and direction of said streaming access" and "cache control means for controlling a rate of streaming access from said linear caches; wherein said cache control means controls a rate and direction of streaming access"**

Regarding the "cache control means..." the Court held in *Motorola* that the terms "are not indefinite, that the function is 'controlling a rate and direction of streaming access to the linear cache,'" and that the corresponding structure is "buffer controller (201), stream clock (202), and rate multiplier, and equivalents thereof." *Motorola Markman*, 2012 WL 6087792, at *73. The Court drew on the intrinsic record in reaching this construction. The Specification defines "stream clock 202":

2. The Stream Clock (202) provides a general device for synchronizing operations on a set of linear caches, such that multiple streams of data which must be presented in a synchronized fashion are correctly positioned, and that they present their data at consistent delivery rates

'195, 5:11-15; *see also id.* at 5:55-65.

The structure consisting of the Buffer Controller, Stream Clock, and Rate Multiplier implements trickplay functionality, including controlling the rate and direction of playback as claimed. *See, e.g.*, '195, 8:34-46, 6:28-51 ("The decoupling of the absolute clock value and the actual dispatching of clock events is critical in implementing some of the unique and novel aspects of the invention, e.g. the ability to control easily the rate at which playback of

the stream occurs"); *id.* at 5:11-15. As the Court previously explained, "[b]ecause the above-quoted disclosures explain that the buffer controller, stream clock, and rate multiplier work together to perform the recited function, those structures constitute the corresponding structure for this means-plus-function term. These structures are also sufficient corresponding structure to avoid indefiniteness." *Motorola Markman*, 2012 WL 6087792, at *73

4. "Synchronization means for synchronizing streamed information from said linear cache for delivery to said cache access means"

The Court has also held that the "synchronization means" term "is not indefinite, that the function is 'synchronizing streamed information from the linear cache for delivery to the cache access means,' and that the corresponding structure is "stream clock (202) and buffer controller (201) programmed to execute the synchronization algorithm described at 7:32-67, and equivalents thereof.'" *Motorola Markman*, 2012 WL 6087792, at *75, *78.

The stream clock and buffer controller perform the recited synchronization algorithm. The patent explains that "synchronization" of streamed information from the linear cache for delivery to the cache access means is done because of the synchronization algorithm. '195, 7:66-67 ("This brings the stream into full synchronization with the key stream.") The specification also explains "[t]he Stream Clock provides a central synchronization facility that distributes time-based events to a number of LCs." '195, 5:56-58; *see also id.* at 5:11-15 (stream clock "synchronizes operations on a set of linear caches.")

C. The Court Should Adopt TiVo's Proposed Constructions For The New Disputed Terms

1. "A linear cache for storing information from said data stream" and "a plurality of linear caches for storing information from said data streams as digital blocks"

Claims 58, 78 and 119 of the Trick Play Patent recite a "linear cache." The

specification contains an express definition of "linear cache." The specification explains:

3. The Linear Cache (204) is a general device for buffering the information contained in a stream of digital information... '195, 5:16-20.

When a patentee acts as his own lexicographer, the claims must be understood in light of the definition in the specification. *Jack Guttman, Inc. v. Kopykake Enterprises, Inc.*, 302 F.3d 1352, 1360 (Fed. Cir. 2002) ("It is black letter law that a patentee can choose to be his or her own lexicographer ... Where, as here, the patentee has clearly defined a claim term, that definition usually ... is dispositive; it is the single best guide to the meaning of a disputed term.") The definition is clear, and explains exactly what the claimed "linear cache" is (a "device for buffering") and what data it buffers ("information contained in a stream of digital information.") Moreover, this lexicographic definition is in a series of four (4) numbered definitions explaining the operations "performed in the invention." '195, 5:4-5. This definition thus applies to the claimed invention as a whole. *See, e.g., Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007) ("When a patent thus describes the features of the 'present invention' as a whole, this description limits the scope of the invention.") The "plurality" in claim 119 simply means "more than 1."

Samsung's proposed definition is inconsistent with the definition in the specification, and improperly seeks to limit the claims to a preferred embodiment. Samsung expressly seeks to read in the specific embodiment of the Linear Cache described at 6:54-55, which merely describes one of the "uses" to which the LC may be applied. The cited paragraph of the specification expressly states that it applies to a "preferred embodiment of the linear cache." 7:2-3. Limiting the construction to a preferred embodiment is improper. *Falana v. Kent State Univ.*, 669 F.3d 1349, 1355 (Fed. Cir. 2012) ("this court [the Federal Circuit] has 'cautioned against limiting the claimed invention to preferred embodiments or specific

examples in the specification."")

2. "Stream capture means for capturing information for a particular data stream type"

In a prior case this Court construed a similar claim that recited an additional function not recited in this claim. In *Motorola*, the Court construed "stream capture means for capturing information for a particular data stream **and encoding said information before storing said information in said linear cache (Claim 60).**" The bolded "encoding" functionality is not included in the dependent claim 121, which is at issue in the current action. The Court in *Motorola* held that the structure required to perform those two functions included "capture mechanism as described in column 7, lines 4 through 26." Regarding claim 60, both TiVo and Samsung agree to the Court's prior construction. But with regard to claim 121, which claims only one of the two functions of the prior construction ("capturing" but not "encoding"), column 7, lines 4 through 26 includes structure that is unnecessary. "A court may not import into the claim features that are unnecessary to perform the claimed function. Features that do not perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations." *Northrop Grumman*, 325 F.3d at 1352. Therefore, Samsung's proposed construction is wrong because it incorporates structure that performs the "encoding" function not present in this claim.

TiVo's proposed construction is correct because it is limited to only the structure required for the recited functions of this particular claim. The agreed upon function of this dependent claim is limited to "capturing information for a particular data stream type," as described at column 7:4-15. For example, the information is captured for presentation within a "window," for example "based on PTS values." The "encoding" function is then described at col. 7:16-26. For example, "certain attributes" are provided "along with each block of

data." These attributes include a "key frame attribute" and an "End Of Segment (EOS) attribute," which are encoded into the data. Unlike claim 60, claim 121 does not claim the "encoding" function, so these portions of the specification do not correspond to the single function of this claim. *See, D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985) (improper to import limitation from one claim into another claim).

D. Claim 119 is Not Indefinite

Samsung argues that claim 119 is indefinite because the antecedent basis of "said linear cache" is unclear. This argument is without merit. "The Federal Circuit has noted that it is a 'well-settled rule that claims are not necessarily invalid for a lack of antecedent basis.'" *Trover Grp., Inc. v. Dedicated Micros USA*, No. 2:13-CV-1047-WCB, 2015 WL 1263358, at *9 (E.D. Tex. Mar. 19, 2015), citing *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1376 (Fed. Cir. 2008). Indeed, even "despite the absence of explicit antecedent basis, if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite." *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370–71 (Fed. Cir. 2006) (internal quotes omitted). Here, the antecedent basis of "said linear cache" is plainly one of the "plurality of linear caches" recited earlier in the claim.

This issue is very similar to an issue that this Court recently addressed in *Intellectual Ventures II*, 2016 WL 125594, at *16. The claim there involved a "presenting step" performed by "one or more potential users." *Id.* Later in the claim, an element referred to "the particular user." *Id.* The defendant argued that "of the many 'potential users' that the claim contemplates, the claim does not specify which one is 'the particular user,'" and was thus indefinite under *Nautilus*. *Intellectual Ventures II*, 2016 WL 125594, at *14. This court swiftly rejected that semantic argument, explaining:

Defendants assert that of the many "potential users" that the independent claim contemplates, the claim does not specify which one is "the particular user." However, the claim is not required to make such an identification. As presented in the claim, the "particular" user is merely one of the "one or more potential users."

Id. at *16

The issue presented here is similar. Samsung suggests that "a person of ordinary skill in the art would not be able to ascertain with reasonable certainty [] which of the plurality of 'linear caches' recited in claim 119" is the antecedent basis for several related terms. *See, e.g.* Dkt. 154.04, L.R. 4-3 Prehearing Statement, Ex. D at 12. But this argument is incorrect. The claims make clear, as was the case in *Intellectual Ventures II*, that the Linear Cache referred to at the end of the claim is any one of the plurality of linear caches previously recited in the claim. Indeed, this court in *Motorola* already explained that the specification envisions and describes multiple linear caches. *Motorola Markman*, 2012 WL 6087792, at *78 ("the specification as a whole demonstrates that the synchronization is with respect to at least one other cache. For example, the multiple caches may include video, audio, second audio programming, and closed captioning.") Figure 2, for example, discloses three Linear Caches, each of which are embodiments of the "plurality of Linear Caches" described in claim 119 and can be used according to the steps of that claim. Just like *Intellectual Ventures II*, the antecedent basis of the "linear cache" terms in claim 119 is reasonably certain under *Nautilus*.

V. CONCLUSION

The Court should continue to apply its existing claims constructions for the Time Warp and Trick Play Patents, apply the constructions of the same terms to the Media Switch Patents, and adopt TiVo's proposals for additional terms from the four TiVo patents-in-suit.

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Respectfully submitted,

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PROOF OF SERVICE

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action. My business address is 1800 Avenue of the Stars, Suite 900, Los Angeles, California 90067-4276.

On September 12, 2016, I served the foregoing document described as **TIVO'S P.R. 4-5(a) OPENING CLAIM CONSTRUCTION BRIEF** on each interested party.

☒ (BY ELECTRONIC MAIL) I caused the foregoing document to be served electronically by electronically mailing a true and correct copy through Irell & Manella LLP's electronic mail system to the e-mail address(es) reflected on the service email, and the transmission was reported as complete and no error was reported.

Executed on September 12, 2016, at Los Angeles, California.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Benjamin Haber
(Type or print name)

/s/ Benjamin Haber
(Signature)